WHAT IS CLAIMED IS:

1. A semiconductor device comprising a crystalline semiconductor layer as an active layer, said crystalline semiconductor layer having a plurality of protrusions on a surface thereof, wherein said protrusions are arranged in parallel with a channel length direction.

2. A semiconductor device according to claim 1 wherein said crystalline semiconductor layer is formed by crystallizing a non-single crystalline semiconductor film by irradiating light thereto.

3. A semiconductor device according to claim 1 wherein said non-single crystalline semiconductor layer is selected from an amorphous semiconductor layer, a microcrystalline semiconductor layer and a polycrystalline semiconductor layer.

4. A semiconductor device according to claim 1 wherein said crystalline semiconductor layer comprises silicon.

5. A semiconductor device according to claim 1 wherein said protrusions have a height of 30 nm or greater from the surface of the crystalline semiconductor layer.

6. A semiconductor device comprising:

a substrate having an insulating surface;

a heat absorbing layer formed over the substrate;

an insulating film formed on the heat absorbing layer;

a crystalline semiconductor film formed on said insulating film, said crystalline semiconductor having a plurality of protrusions on a surface thereof; and

an active layer formed in said crystalline semiconductor layer,

wherein said protrusions are arranged in parallel with a channel length direction of said active layer, said heat absorbing layer is arranged in parallel with said channel length direction, and a thermal conductivity of said heat absorbing layer is larger than those of said substrate and said insulating film.

7. A semiconductor device according to claim 6 wherein said crystalline semiconductor film is formed by irradiating a non-single crystalline semiconductor film with light.

8. A semiconductor device according to claim 7 wherein said non-single crystalline semiconductor layer is selected from an amorphous semiconductor layer, a microcrystalline semiconductor layer and a polycrystalline semiconductor layer.

9. A semiconductor device according to claim 7 wherein said crystalline semiconductor layer comprises silicon.

10. A semiconductor device according to claim 7 wherein said protrusions have a height of 30 nm or greater from the surface of the crystalline semiconductor layer.

11. A semiconductor device according to claim 7 wherein said heat absorbing layer comprise a material selected from the group consisting of Cr, Mo, Ti, Ta and W.

12. A semiconductor device according to claim 6 wherein said heat absorbing layer functions as an electrode of a storage capacitance provided in a pixel of a liquid crystal display device or an EL display device.

13. A method of manufacturing a semiconductor device comprising the steps of:

forming a heat absorbing layer in an island form over a substrate;

forming an insulating film over said heat absorbing layer;

forming a non-single crystalline semiconductor film on said insulating film;

irradiating said non-single crystalline semiconductor film with light so that said semiconductor layer is melted and solidified;

patterning said semiconductor film into a semiconductor island so that a channel length direction of the

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semiconductor island is aligned with an outer edge of said heat absorbing layer.

14. A method according to claim 13 wherein said semiconductor film is crystallized by said light.

15. A method according to claim 13 wherein said non-single crystalline semiconductor film is selected from an amorphous semiconductor film, a microcrystalline semiconductor film and a polycrystalline semiconductor film.

16. A method according to claim 13 wherein said semiconductor film comprises silicon.

17. A method according to claim 15 wherein a plurality of protrusions are formed on said semiconductor film after the irradiation, and a height of said protrusions is at least 30 nm.

18. A method according to claim 13 wherein said heat absorbing layer comprises a metal selected from the group consisting of Cr, Mo, Ti, Ta and W.

19. A method according to claim 13 wherein said absorbing layer functions as an electrode of a storage capacitance of a liquid crystal display device or an EL display device.

20. A method of manufacturing a semiconductor device comprising the steps of:

forming a heat absorbing layer comprising a metal and having one side edge over a substrate;

forming a first insulating film over said heat absorbing layer;

forming a non-single crystalline semiconductor film on said first insulating film;

irradiating said non-single crystalline semiconductor film with light to crystallize said semiconductor film wherein said semiconductor film is melted at least partly and a plurality of protrusions are formed on the crystallize semiconductor film;

patterning the crystallized semiconductor film into at least one semiconductor island to form a channel region;

forming a gate insulating film on the channel region; and

forming a gate electrode on said gate insulating film,

wherein said side edge of said heat absorbing layer is approximately aligned with a channel length direction of said channel region.

21. A method according to claim 20 wherein said semiconductor island is patterned so that said channel region does not cover said heat absorbing layer.

22. A method of manufacturing a semiconductor device

comprising the steps of:

forming a heat absorbing layer comprising a metal and having one side edge over a substrate;

forming a first insulating film over said heat absorbing layer;

forming a non-single crystalline semiconductor film on said first insulating film;

irradiating said non-single crystalline semiconductor film with light to crystallize said semiconductor film wherein said semiconductor film is melted at least partly and a plurality of protrusions are formed on the crystallize semiconductor film;

patterning the crystallized semiconductor film into at least one semiconductor island having a channel region therein;

forming a gate insulating film on the channel region; and

forming a gate electrode on said gate insulating film,

wherein said protrusions are formed so that first regions of said channel region has a larger number of said protrusions and second regions of said channel region has no or a smaller number of said protrusions, and said first and second regions appear in turn in a direction orthogonal to a channel length direction of said channel region.

23. A method according to claim 22 wherein said channel region does not overlap said heat absorbing layer.

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24. A method according to claim 22 wherein said one side edge of the heat absorbing layer is aligned with said channel length direction.

25. A method according to claim 22 further comprising a step of crystallizing said non-single crystalline semiconductor film before irradiating said light.

26. A method according to claim 22 wherein said light is a laser light.

27. A method according to claim 20 wherein said light is a laser light.

28. The method according to claim 20 wherein said semiconductor device is selected from a personal computer, a video camera, a portable information terminal, an electronic game equipment, and a digital camera.

29. The method according to claim 20 wherein said semiconductor device is a liquid crystal device.

30. The method according to claim 20 wherein said semiconductor device is an EL display device.

31. The method according to claim 22 wherein said semiconductor

device is selected from a personal computer, a video camera, a portable information terminal, an electronic game equipment, and a digital camera.

32. The method according to claim 22 wherein said semiconductor device is a liquid crystal device.

33. The method according to claim 22 wherein said semiconductor device is an EL display device.